

The numerator, d, is included in the denominator, d+e. A multiplier, 100, is used to convert the proportion d/(d+e) to a percentage.

Race: In most SCHS publications, the two categories, "White" and "Nonwhite," are used. "Nonwhite" is predominantly black (93%) in North Carolina. In a few counties which have substantial numbers of American Indians, the categories "White," "Black," "Indian," and "Other" are used in some reports.

Rate: A. Definition: A number computed as  $(a/b) \times c$ . The numerator, a, equals the number of events of interest observed in a population during a given time period. The denominator, b, equals the size of the population at risk. The quantity c is the unit of measure by which the rate is expressed, e.g., the number of deaths per 1,000 population.

B. Intuition: The denominator, b, is the population base. Events in the numerator, a, usually form a subset of events in the denominator; thus, loosely speaking, the numerator is a part of the denominator. Every rate is measured for a definite time period, usually a calendar year or a five-year period.

C. Formulas: Rates are generally of two types.

- Population-based rates are of the form

$$\frac{\text{Number of Events}}{\text{Population size}}$$

- Event-based rates are of the form

$$\frac{\text{Number of Events A}}{\text{No. of Events A + No. of Events B}}$$

Some general rates given in the Data Book are:

1/ Annual Rate:

$$\frac{\text{Total number of events occurring during the year (Jan 1 - Dec 31)}}{\text{Total population as of July 1}} \times 1,000$$

2/ Multiyear (annualized) Rate:

$$\frac{A_1 + A_2 + \dots + A_n}{B_1 + B_2 + \dots + B_n} \times c$$

where A is the number of events in a calendar year;

where B is the population base for a calendar year;